

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

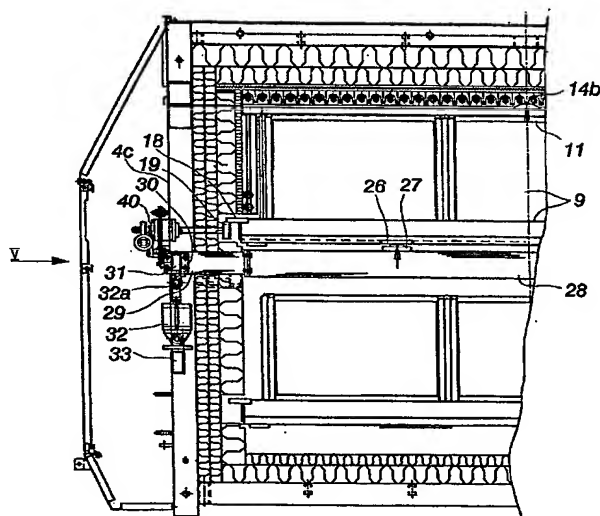
PCT

(10) International Publication Number
WO 2004/113240 A1

- (51) International Patent Classification⁷: **C03B 23/03**, 35/20
- (21) International Application Number:
PCT/FI2004/050085
- (22) International Filing Date: 8 June 2004 (08.06.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
20035107 25 June 2003 (25.06.2003) FI
- (71) Applicant (for all designated States except US): **Tamglass Ltd. Oy** [FI/FI]; Vehmaistenkatu 5, FI-33730 Tampere (FI).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **YLI-VAKKURI, Erkki** [FI/CH]; Rue des Indiennes 3, CH-2074 Marin-Epagnier (CH). **KOIVISTO, Heikki** [FI/FI]; Virvakatu 6, FI-33710 Tampere (FI).
- (74) Agent: **Leitzinger Oy**; Tammasaarenkatu 1, FI-00180 Helsinki (FI).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report

[Continued on next page]

(54) Title: APPARATUS FOR BENDING GLASS PANELS



(57) Abstract: The invention relates to an apparatus for bending glass panels. An upper tier of successive mould carriages (9) defines a number of heating compartments, the last one constituting an actual bending compartment (4b). A lower tier of successive mould carriages (9) defines a number of cooling compartments (5, 6, 7), which are located underneath the heating compartments. The mould carriages are provided with an open-structured or otherwise highly heat transmissive bottom (10). The mould supporting carriage (9) is provided with mould bearer elements (26) and the final bending compartment (4b) has its lower section provided with ascendable and descendable brace elements (27), which provide bracing for the bearer elements (26) during a pressing operation performed by means of a male mould (22). In connection with the brace elements (27) are further provided lifting and lowering mechanisms for the brace elements (27).



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.